



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Flupyradifurone: Response to Public Comments on EPA's "Proposed Registration of the New Active Ingredient Flupyradifurone"
(Docket ID: EPA-HQ-OPP-2013-0226)

Summary

This document summarizes the U.S. Environmental Protection Agency's (the Agency, EPA) responses to public comments received through the public notification of the receipt of the application for registration of the new active ingredient flupyradifurone, and the announcement of the proposed decision to unconditionally register flupyradifurone under Section 3(c)5 of the Federal Insecticide, Fungicide, Rodenticide Act (FIFRA).

The Agency, as required by FIFRA, published in the Federal Register on May 29, 2013 a Notice of Receipt (NOR) of applications for registration of flupyradifurone, submitted by Bayer CropScience, and announced a public comment period of 30 days. Two comments were received during this period. The first expressed concern that neonicotinoid chemicals and other toxic substances are poisoning the environment, specifically citing concerns over cancer (generally) and concerns regarding pollinator exposure to toxic substances. The second comment was not specifically directed toward the application to register flupyradifurone but generally directed at the registration of pesticides. Both comments were addressed in the Proposed Registration Decision document, available in the regulations.gov docket (Document ID: EPA-HQ-OPP-2013-0226-0015).

EPA announced the proposed decision of the unconditional registration of flupyradifurone on September 25, 2014, and held a public comment period for 30 days. Twenty-three distinct comments posted to the docket during the public comment period (twenty-one in support of the Agency's proposed decision, two opposing the Agency's decision). The Agency's review and responses are summarized in this document.

Summary of Comments Supporting the Agency's Proposed Decision

There were twenty-one comments submitted to the docket supporting the Agency's proposed decision to register flupyradifurone as a new insecticide active ingredient. Comments were submitted by University Research and Extension agents, IR-4, as well as grower and commodity organization groups representing potatoes, apples, hydroponic tomato and cucumbers, citrus, hops, cotton, winegrapes and alfalfa. Specifically, University Agricultural Researchers and Extension agents cited the growing need in the south, southeast and midwest for effective insecticide tools for use in cotton and cereal grains (sorghum) to combat key pests that have a propensity to rapidly develop resistance, such as the cotton aphid and sugarcane aphid (Document IDs: EPA-HQ-OPP-2013-0226-0016, -0017, -0024, -0025, -0026, -0035). Researchers and commodity groups commented on the lack of effective tools to control whiteflies, aphids and leafhoppers in vegetable crops (squash, tomatoes, potatoes), tree nuts, and fresh fruit crops, where flupyradifurone has shown effective control of these target pests with a new mode of action (Document IDs: EPA-HQ-OPP-2013-0226-0019, -0024, -0027, -0032, -0038). Commenters also noted flupyradifurone has shown effective control of additional key devastating pests such as hop aphids (EPA-HQ-OPP-2013-0226-0034), Asian citrus psyllid in Florida and California (EPA-HQ-OPP-2013-0226-0020, and -0031), spider mites and blue alfalfa aphid in alfalfa (EPA-HQ-OPP-2013-0226-0028, and -0041). Commenters also noted that there

is an identified lack of cross-resistance between other insecticides targeting the same target pests and flupyradifurone which make it an effective tool in an Integrated Pest Management (IPM) program (EPA-HQ-OPP-2013-0226-0019, -0020, -0030, -0040).

As the commenters noted, flupyradifurone demonstrates efficacy against a variety of piercing, sucking insects, including species that are challenging to control (e.g., scales, whiteflies), transmit disease (Asian citrus psyllid) and/or are known to rapidly develop resistance (e.g., whiteflies). Registration of flupyradifurone can provide growers with a new pest management tool with a new mode of action that has no evidence of cross-resistance with currently registered pesticides.

Comment: Pollinator Stewardship Council, Michele Colopy, Program Director (Document ID: EPA-HQ-OPP-2013-0226-0033)

Though the commenter does not explicitly state which public document they are submitting comments on, the Agency understood the comments to be attributable to the “Environmental Fate and Ecological Risk Assessment for Foliar, Soil Drench, and Seed Treatment Uses of the New Insecticide Flupyradifurone (BYI 02960)” (Document ID: EPA-HQ-OPP-2013-0226-0010). The environmental fate and ecological data submitted in support of the registration decision for flupyradifurone is relatively comprehensive. These data have been reviewed by EPA, Health Canada’s Pest Management Regulatory Agency (PMRA), the Australian Pesticides and Veterinary Medicine Authority (APVMA) and the Australian Department of the Environment. All of the studies have been categorized as scientifically sound and appropriate for use in assessing the potential risks of flupyradifurone to both humans and the environment. Since there are numerous comments within the submitted document, individual comments are summarized below followed by the Agency’s response to each numbered comment.

- 1) *Flupyradifurone has greater persistence in the water column than sediment, thus exposing honey bees through the ingestion of water with a Flupyradifurone half-life of 330.1 days.*

EPA Response:

While flupyradifurone is characterized as persistent to very persistent in soil, sediment and water, the available environmental fate data indicate that the compound degrades rapidly via aqueous photolysis with DT50 values of 2.5 days. Although aqueous photolysis would be limited to surface waters that are shallow/clear, it is likely that these conditions would be present where honey bees (*Apis mellifera* L.) may be ingesting water.

- 2) *Flupyradifurone is very highly toxic to freshwater insects, and the chemical is mobile and persistent in the water. You clearly state “methodologies are not available to determine the distance that is needed to eliminate the risk concern from transport to runoff.”*

EPA Response:

As an insecticide, flupyradifurone may be expected to be toxic to non-target insects (invertebrates) whether they are located in terrestrial and/or aquatic environments. The ecological effect data indicate a relatively broad range of sensitivities in aquatic and terrestrial invertebrates. The compound is classified as slightly to practically non-toxic to freshwater invertebrates (*Daphna magna*) on an acute exposure basis while it is very highly toxic to benthic invertebrates (*Chironomous riparius*). As noted by the Commenter, the environmental fate data indicate that the compound is more likely to be associated with the water column than the sediments; therefore, the likelihood of exposure to benthic invertebrates is reduced. The second part of the comment above regarding the reduction in exposure with distance from the treated site is contextually part of the labeling statement advising the pesticide applicator to install a maintained vegetative buffer between the treated site and sensitive aquatic systems. The Agency recognizes that any setback buffer, vegetative or otherwise, between a water body and the treated field is expected to reduce exposure, however, methodologies are not available to determine the exact distance that is needed to eliminate the risk concern from transport in runoff because of the complex dissipation and degradation that occurs within the buffer. Therefore the Agency included a maintained vegetative buffer statement on the label in order to reduce the potential exposure of flupyradifurone in water bodies resulting from runoff of the treated field.

- 3) *...the research appears to show this systemic insecticide may not be acutely toxic upon the first exposure, but the second and third applications show effects upon honey bee mortality, behavior, brood development, and food storage. You also stated there is a “potential for effects of Flupyradifurone to non-target terrestrial arthropods” “at or below proposed application rates.”*

EPA Response:

The comment is apparently based on an understanding of research across multiple systemic insecticides; however, the assessment is specific to flupyradifurone and is not intended to generalize across all systemic insecticides as such an analysis is beyond the scope of the risk assessment. Flupyradifurone has a relatively comprehensive database with respect to the potential effects of the compound on honey bees. Semi- and full-field studies accounted for the systemic uptake of the compound by plants as well as potential for direct contamination of pollen, nectar and bees via foliar applications through their use of seed, soil drench and foliar applications within the same study. These studies evaluated a range of colony-level measurement endpoints that included effects on developing brood (eggs, larvae, and pupae) and adults during, immediately after and for prolonged periods following exposure. None of the studies indicated any long-term effects on bee colonies from exposure through overwintering. The label limits the application of flupyradifurone to a single season per year (especially for pollinator attractive crops); therefore, the application scenarios evaluated in the field-based studies of honey bees are believed to represent worst-case exposures from residues taken up by the plant and distributed to pollen/nectar as well as those that may occur through foliar deposition. None of these studies demonstrated any long-term adverse effect on honey bee colonies.

- 4) *Flupyradifurone degrades into four other products: 6-chloronicotinic acid (6-CAN- which is a degradate for Flupyradifurone, acetamiprid, and imidacloprid); difluoroacetic acid (DFA); BYI 02960-succinamide (M48); and BYI 02960-azabicyclosuccinamide (M47). These degradates you state are persistent in aquatic environments with half-lives of 3-951 days. Additionally, Flupyradifurone and its degradates were found in the “top 15 cm” of soil, but as deep as 40cm. A “portion of applied Flupyradifurone does have the potential to build up in soil with subsequent applications from year to year.” The degradates may not appear to be more toxic than their parent chemical, but you acknowledge “toxicity studies with transformation products were not carried out at high enough concentrations to definitively conclude that they are not of equal or greater toxicity to the organisms tested as compared to the parent compound.”*

EPA Response:

Across the species tested with the degradates of flupyradifurone, the studies either resulted in non-definitive endpoints where the median lethal concentration to 50% of the organisms tested (*i.e.*, LC₅₀) exceeded the highest concentration tested or the LC₅₀ value exceeded the limit test concentration of 100 mg/L. The risk assessment chapter is correct in noting that in cases where the LC₅₀ is non-definitive, studies were not conducted up to the same concentrations as the parent compound. Based on the available data though, there is no evidence to indicate that any of the degradation/transformation products are more toxic than the parent compound.

- 5) *The research concerning the residues of Flupyradifurone in nectar and pollen found different levels of the chemical in pollen and nectar, the level varied per plant, and if the plant had extra nectaries. Pollen appeared to contain higher levels of Flupyradifurone, than nectar (3.5-106x), and the levels increased with the number of applications of Flupyradifurone. Table 28 in your documentation further highlights this concern as your comments to studies and pollen in various crops shows the increase of Flupyradifurone at the second, and third applications during the same growing season. Further, the concentration remains high for 1-7 days after the second and third applications (depending on the crop). If residues of Flupyradifurone take 7-14 days to dissipate in the pollen and nectar, beekeepers will have to remove their bees during this timeframe in order to protect them. However, moving honey bees away from a blooming crop is not a reasonable mitigation measure. The crop will lose 7-14 days of pollination if beekeepers are required to move their livestock to protect them from exposure to this systemic insecticide.*

EPA Response:

As noted in previous responses, the dataset for flupyradifurone and honey bees is relatively comprehensive and the field studies indicate that under what are considered relatively worst-case exposure conditions, there are no long-term adverse effects to bee colonies. While monitoring data indicate that flupyradifurone residues are higher in pollen than in nectar, feeding bees up to 10,000 µg ai/kg diet did not result in adverse acute, short-term, or long-term effects on mortality, colony strength and development, brood development, food storage, honey bee behavior, and

overall hive vitality and colony health, as well as on overwintering performance. Following the risk assessment, the label was revised to address the potential risk associated with multiple cropping cycles per year; a limit of 1 per year for pollinator attractive crops was instituted. The Agency did not impose the relocation of bees in order to protect them from application of flupyradifurone; therefore, the Agency has no response to that aspect of the commenter's statement.

- 6) *Studies of caged honey bees fed Flupyradifurone do not reflect the real world of honey bees. Flupyradifurone will be utilized in a tank mix, and effects of Flupyradifurone, its degradates, mixed with herbicides, and fungicides is unknown. The synergistic effects of these chemicals upon honey bees is unknown; yet that will be how honey bees will encounter this compound.*

EPA Response:

The ecological risk assessment chapter evaluates the data submitted to support the registration of flupyradifurone and does not evaluate the potential effects of bees that may occur from complex mixtures of pesticides that may occur in the environment. The risk assessment evaluates multiple lines of evidence extending from laboratory-based studies on individual bees to semi- and full-field studies of whole colonies to determine whether there is an indication of long-term effects on honey bee colonies from relatively high-end exposure to flupyradifurone. The whole colony studies from feeding spiked sucrose and foliar applications under semi-field conditions to full field conditions are intended to represent increasing levels of environmental realism that may occur under actual use conditions. At the full-field level, colonies would be exposed to the same environmental mixtures as well as other factors that can affect pollinator health (*e.g.*, disease, pests, nutritional stressors); however, across these studies, there was no indication of long-term adverse effects on the colony from exposure to flupyradifurone.

- 7) *While a ten-day honey bee feeding study was conducted, what happened at day 16, 21, and 24—developmental stages of honey bees? To state there were “no consistent adverse effects” except “some increases in mortality and decreases in foraging activity immediately following applications . . . and in some cases there was recovery from the effects on mortality by test termination,” does not inspire confidence in the use of this compound.*

EPA Response:

As with any ecological effect (toxicity) study, there can be fluctuations in test organism responses over the course of the study. The Agency considers multiple lines of evidence in characterizing the likelihood of adverse effects from exposure to a compound, *i.e.*, risk. Consistent with data provided from control colonies, there can be shifts in brood and/or adult bee strengths that represent what are considered normal fluctuations. The likelihood of such fluctuations increases when colonies are confined to enclosures and/or when the colonies are manipulated for the purposes of collecting data. The intent of the field studies is to record multiple measures of colony performance over the course of the study and to determine whether,

in the face of these effects, there appears to be any long-term adverse effect on the colonies from exposure to the test compound. Across the six semi-field studies, the feeding study, and two full-field studies, there were fluctuations in mortality and sub-lethal measurement endpoints; however, the multiple lines of evidence consistently demonstrate that exposure of honey bee colonies to flupyradifurone did not result in long-term adverse effects to the study colonies. The intent of the risk assessment is to inform the risk management decision of the potential adverse effects that may occur from exposure to a specific compound. The risk management decision balances the risks identified in the risk assessments with the benefits provided by the compound and determines whether those risks are unreasonable.

- 8) *You further state you question the “large variation in starting colony size” and the “low number of replicates per treatment group” limit the ability to detect the effects of Flupyradifurone.*

EPA Response:

The Agency has reviewed a large number of studies to evaluate the potential effects of pesticides across multiple taxa. One of the inherent limitations to conducting toxicity studies is in having sufficient replication to improve the power of the study to differentiate (detect) a treatment-related effect and to avoid making a Type II error, i.e., concluding that there is not an effect when there is. This limitation exists in laboratory-based studies where environmental conditions are relatively well controlled. It is amplified in field-based studies where environmental conditions can be difficult to control. With respect to honey bee studies, the ability to replicate is even more challenging given the distance that bees can forage and the difficulty in normalizing colony size. The Agency recognizes the logistical challenges of conducting field studies and is transparent in identifying study limitations in its assessment, however these complex studies provide significant addition to the understanding of how flupyradifurone moves in the environment and are necessary to understanding the overall impact a chemical may have on non-target organisms.

- 9) *Relying on the label guideline to protect against mixing Flupyradifurone with azole fungicides is unrealistic.*

EPA Response:

Pesticide labeling is legally enforceable and the Agency relies on it to ensure that pesticides pose no unreasonable adverse effects. The Directions for Use portion of a pesticide label describes how the product can legally be used and direct how the product cannot be used. In the Use Restriction for mixing flupyradifurone with azole fungicides; the label explicitly states “Do not tank mix with azole fungicides (FRAC group 3) during bloom period.”

- 10) *This statement on page 79 is worrisome, “Maximum residues in comb pollen, nectar, and wax varied, but generally occurred one week to several months after the second application indicating that residues were translocated within the hives to varying*

extents.” Flupyradifurone appears to have pre-lethal effects which long term, replicated studies would reveal.

EPA Response:

From a risk assessment perspective, if data failed to demonstrate that bees were exposed to residues it would be difficult to conclude that in the absence of effects, there was actually exposure. The available data indicate that residues were moving into the colony and that bees were exposed to the flupyradifurone through a range of matrices including pollen, nectar, bee bread and wax. Although the compound is not expected to readily partition into wax, given the low octanol-water partition coefficient ($K_{ow} = 1.2$), the data indicate that it appears to be stored in the comb. These exposure data though must be considered in the context of whether adverse effects were observed concurrent with the exposure. The data provided on flupyradifurone via feeding studies demonstrate that much higher levels of exposure than those measured in the various colony matrices did not result in long-term effects on overall colony strength/performance. The semi-field and full-field studies also demonstrate that residues that may be stored in the colony over prolonged periods did not appear to impact colony overwintering success. Although the available studies have limited numbers of replicates, none of the studies suggest significant adverse effects on colony performance.

11) While Flupyradifurone is “practically non-toxic to bees on an acute contact exposure basis,” “the greatest area of uncertainty surrounding the potential risk to bee pollinators is for foliar application at full bloom.” “In addition, pollen, nectar, and wax residue data from one of the full field studies with Flupyradifurone (MRIDs 48844517) indicate that average residues did not reach their maxima until up to several months after the pesticide was applied.

EPA Response:

As noted in previous responses, the semi- and full-field studies with flupyradifurone utilized a combination of seed, soil and foliar applications and the second foliar application was made during full bloom while bees were actively foraging. Therefore, the studies represent relatively high-end exposure from residues that may have been systemically translocated to pollen/nectar by plants as well as through direct contamination by contact with the foliar-applied compound. The residue data collected in various colony matrices indicate that bees were exposed to the compound and that exposure occurred for a protracted period of time. The field studies indicate that from both the perspective of acute exposure to longer-term chronic exposure to residues stored in the colony, there is no evidence of long-term adverse effects. This understanding is further informed by feeding studies where exposure was considerably higher than levels detected in colony matrices, yet these exposure levels did not result in long-term impacts to colony strength/performance. The data are also consistent with the observations that as residues move through the colony, they tend to drop substantially in royal/brood jelly and that effects to developing brood were not apparent based on laboratory studies demonstrating that flupyradifurone is practically non-toxic to honey bee larvae on an acute exposure basis. The Agency is aware that developing larvae transition away from royal/brood jelly as they approach

pupation; however, again, the longer-term colony-level studies available for flupyradifurone do not demonstrate long-term adverse effects on colonies relative to control performance.

12) As a systemic insecticide it will translocate to pollinator forage areas developed through Federal and State initiatives.

EPA Response:

The environmental fate assessment indicates that flupyradifurone is moderately mobile to mobile depending on soil conditions and that it has the potential to dissipate from the point of application through various transport mechanism, including runoff, erosion and leaching to groundwater. The Commenter presumes that dissipation will in turn make residues available for plant uptake and distribution in areas adjacent to the treatment site. However, it is likely that the residues in non-target plants as a result of the dissipation of the compound from treatment sites will be lower than those that occur from direct application to the treatment site. The available data from semi-field and full-field studies do not indicate any long-term adverse effect on colony health/performance/condition; therefore, the impact of the potential dissipation and uptake of residues on pollinator forage is uncertain, though understandably less than the concentrations bees were exposed to in the full-field studies that indicated no long-term adverse effects.

13) Its mobility in water will affect honey bees, and other pollinators.

EPA Response:

Terrestrial invertebrates such as bees would most likely collect water from shallow surface waters and the available data indicate that flupyradifurone is unstable in shallow waters where it is susceptible to aqueous photolysis. Therefore where residues do move into water through various routes of dissipation, residues are likely to degrade rapidly ($t_{1/2} = 2.5$ days) in shallow clear waters which terrestrial invertebrates such as bees use to collect water.

14) The repeated use of Flupyradifurone has shown to increase its toxicity with each application with a half-life of one application lasting 3-951 days in the plants, soil, and water.

EPA Response:

It is unclear what the Commenter is referring to when saying that repeated use of flupyradifurone "...has shown to increase its toxicity with each application with a half-life of one application lasting 3 – 951 days in plants, soil and water." Presumably, the comment is intended to mean that the compound is likely to accumulate in various environmental compartments and that cumulative residues could reach a level that would in turn be toxic to non-target organisms. While the ecological risk assessment is correct in noting that times to 90% decline of pesticide mass (DT90) from surface soils in terrestrial field dissipation studies often exceeded one year, DT50 values for the majority (83%) of the field dissipation studies were less than 100 days. If the Agency's interpretation of the comment is correct, then the Agency is not aware of specific

data demonstrating that the compound is accumulating through multiple applications to levels that will in turn be toxic to non-target organisms beyond what has already been characterized in the ecological risk assessment especially given that estimated environmental concentration in the assessment are based on 30-yr simulations.

15) The use of this compound will further exacerbate the concerns over the honey bees' food supply: pollen, nectar, and water.

EPA Response:

The proposed use of flupyradifurone is not likely to impact the supply of pollen/nectar and water. Presumably, the Commenter is referring rather to the quality of the food/water supply in terms of pesticide residues. As discussed in the preceding comments, the available data do not indicate that residues will reach levels in either pollen/nectar that will result in long-term effects on overall colony performance. While there is uncertainty regarding the potential residue levels that may occur in water, where residues are present in shallow, clear water, which is most likely a bee's source of water, degradation of flupyradifurone by aqueous photolysis is rapid.

Comment: Center for Biological Diversity, Brett Hartl, Director, Endangered Species Policy (Document ID: EPA-HQ-OPP-2013-0226-0039)

1) The EPA has an independent duty under the Endangered Species Act to consult with the U.S. Fish and Wildlife Service and National Marine Fisheries Service on the registration of any new active ingredient that may affect protected species.

and

2) The EPA has an independent duty under the Endangered Species Act to consult with the U.S. Fish and Wildlife Service and National Marine Fisheries Service on the approval of any end-use product that may affect protected species.

EPA Response:

The Agency appreciates the support and encouragement that the Center for Biological Diversity (CBD) provided in the submitted comment regarding the use of *Bulletins Live!*, and the comparative hazard assessment for flupyradifurone. The Agency acknowledges the comment CBD submitted regarding the duty to consult. The Agency is focusing most of its resources for assessing impacts to listed species on the Agency's registration review program for currently registered pesticides. EPA believes that, as a general matter, currently registered pesticides present a greater degree of risk to listed species than most new chemistries coming to market, including flupyradifurone, and that it is therefore environmentally preferable in most circumstances for EPA to assess the impacts of existing pesticides sooner in the process than newer pesticides that are designed to compete with more risky alternatives. EPA believes that is especially true for flupyradifurone, where the alternatives include, organophosphates,

nitroguanidine neonicotinoids, and pyrethroids. As a result, EPA does not believe the environment or the public would be best served by delaying the registration of flupyradifurone to complete consultation. Focusing EPA's, FWS', and NMFS' limited resources on completing a consultation on the effects of flupyradifurone would by necessity come at the expense of putting more resources into evaluating – and consequently regulating, where appropriate – what EPA believes to be more toxic compounds, that, among other things, pose greater risk, to endangered species than does flupyradifurone.

- 3) *The ecological risk assessment for flupyradifurone is under-protective of listed species and should be revisited in light of the findings of the National Academy of Sciences report and the interim approaches document...The Interim Approaches document lays out an analytically sound, three-step approach for conducting pesticide reregistration – a process which should apply equally to pesticide registrations.*

EPA Response:

It is important to understand that the development of the Interim Approaches does not by its terms suggest that existing or recently developed risk assessments using the criteria articulated in OPP's 2004 Overview document (<http://www.epa.gov/espp/consultation/ecorisk-overview.pdf>) are necessarily "under-protective." The Interim Approaches are intended to identify interim thresholds for interagency review as the Agencies jointly work to implement the recommendations of the NAS on certain specific registration review actions. The Agencies have made no determination that these thresholds are necessary to prevent take and preclude likely jeopardy and, in any case, the Interim Approaches do not establish legally binding thresholds for consultation under the Services' implementing regulations. As EPA and the Services work through the initial actions that are being reviewed under the Interim Approaches, the Agencies will determine whether these thresholds should be modified before they are extended more broadly to additional regulatory actions. The details of the joint Interim Approaches are contained in the white paper "Interim Approaches for National-Level Pesticide Endangered Species Act Assessments Based on the Recommendations of the National Academy of Sciences April 2013 Report," dated November 1, 2013, available at <http://www.epa.gov/espp/2013/nas.html>.

As the Agency has emphasized in multiple forums (including above), EPA is focusing most of its resources for assessing impacts to listed species on its registration review program for currently registered pesticides. EPA believes that, as a general matter, currently registered pesticides present a greater degree of risk to listed species than most new chemistries coming to market, including flupyradifurone, and that it is therefore environmentally preferable in most circumstances for EPA to assess the impacts of existing pesticides sooner in the process than newer pesticides that are designed to compete with more risky alternatives. As a result, EPA does not believe the environment or the public would be best served by delaying the registration of flupyradifurone to complete consultation. Focusing EPA's and the Services' limited resources on completing a consultation on the effects of flupyradifurone would by necessity come at the expense of putting more resources into evaluating – and consequently regulating, where

appropriate – what EPA believes to be more toxic compounds, that, among other things, pose greater risk to endangered species than does flupyradifurone. With respect to the evaluation of flupyradifurone specifically, it is important to understand that under any internal or interagency review, the ecological risk evaluation will continue to rely on the body of information used in the current EPA ecological assessment.

For the reasons explained above, EPA is not consulting with the Services on the issuance of the flupyradifurone registration. However, EPA is currently working to prioritize its consultation activities with Services and will evaluate the appropriate timing and scope of consultation on flupyradifurone in connection with those efforts. In addition, to the extent EPA receives new information indicating that flupyradifurone may pose a greater risk to listed species than indicated by the existing scientific database for this pesticide, EPA will re-evaluate the terms of registration and determine whether additional use restrictions to protect listed species are necessary.